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The Bulletin *of the* University *of* Minnesota

West Central School and Station
Morris, Minnesota
Announcement for the Year
1917-1918

UNIVERSITY OF MINNESOTA
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SCHOOL CALENDAR

1917-1918

1917			
October	1	Monday	First term opens: Registration
October	2	Tuesday	Organization of classes
October	27	Saturday	Field Day
November	29	Thursday	Thanksgiving Day; a holiday
December	8	Saturday	Inter-society Debate
December	21	Friday	First term closes; Christmas vacation begins
1918			
January	7	Monday	Christmas vacation ends; Second term opens: Registration
January	8	Tuesday	Organization of classes
February	12	Saturday	Lincoln's Birthday
February	18	Monday	Farmers' Short Course opens
February	22	Friday	Washington's Birthday
February	23	Saturday	Farmers' Short Course closes
March	20	Wednesday	Morris-Crookston Debate
March	28	Thursday	Junior-Senior-Alumni Banquet
March	29	Friday	Commencement Day
April	2-6	Week	Junior Short Course

WEST CENTRAL SCHOOL AND STATION

FACULTY

*George Edgar Vincent, Ph.D., LL.D., President
†Marion LeRoy Burton, D.D., Ph.D., LL.D., President
Cyrus Northrop, LL.D., President Emeritus
Albert F. Woods, M.A., D.Agr., Dean
Edward M. Freeman, Ph.D., Assistant Dean
Paul E. Miller, B.S.A., Acting Superintendent

John A. Anderson, B.S., Horticulture, Music
Ole O. Bye, Carpentry, Farm Structures, and Superintendent of Buildings
Joyce E. Fiero, B.A., English
Louise Fitzgerald, B.S., Home Economics
Irma Hathorn, B.A., Preceptress
Florence Hulett, R.N., Home Nursing and Resident Nurse
Mae Middleton, Piano and Gymnasium
Philip Jordan, B.S., Animal and Dairy Husbandry
Mary E. King, B.A., Librarian and English
Theodore Odlund, B.S., Agronomy and Farm Management
Philip Schweickhard, Preceptor and Social Science
Susan Wilder, B.A., B.S., Home Economics
Arthur Woodman, B.S., Agricultural Engineering

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* Term of office ends June 30, 1917.
† Term of office begins July 1, 1917.

GENERAL INFORMATION

PURPOSE

The West Central School of Agriculture is an institution established primarily for the training of young men for the profession of farming, and young women for the profession of home making. The courses are planned and the subjects are taught with the purpose of making the students masters of this work. The courses are sufficiently extended to give, not only a fairly complete technical knowledge of the business of production, but a working basis for the economic and sociological aspects of farm life. The farmer must have a broad grasp of his profession in its relationships with other callings, as well as a realization of the possibilities of its social development.

LOCATION

The School is admirably situated to serve the west central part of the state. It adjoins the city of Morris and is situated upon a natural rise of ground overlooking the Pomme de Terre Valley. The campus with its twenty buildings, beautiful lawns, and pleasant drives is one of the beauty spots of this section.

ADMISSION

The School will admit any mature young man or woman. Applicants above sixteen years of age will be welcomed even tho they have not graduated from the eighth grade. Whenever possible, prospective students should present county or High School Board certificates in the common branches. These will admit to the regular work without conditions. In certain lines of work high-school subjects will be accepted for advanced credit.

TIME OF OPENING

The School of Agriculture will open Monday, October 1 and the fall term will close Friday, December 21. The winter term will open Monday, January 7 and close Friday, March 29. The School work covers a period of six months at a time when the students can best be spared from home.

SPECIAL INFORMATION

Old or new students planning to attend the School of Agriculture should write early to the Registrar asking him to reserve a room. Students may reserve rooms in advance by paying a deposit fee of two dollars, which will be refunded upon entering school. If the student is unable to enter school the deposit may be reclaimed before September 15. Each dormitory room is furnished with two single beds, dresser, table, chairs, curtains, sheets, bed spreads, pillows, and pillow cases. Each student should bring with him quilts or blankets for one single bed, towels, comb, brushes, and other toilet articles.

Preferences as to roommates should be stated early and will be considered so far as possible.

Students more than two weeks late in entering may not be able to complete all of the term's work without conditions. If a student can not enter before the middle of November, he should wait until January 7 for the new term and new classes to start.

All trains will be met by special committees Monday, October 1. If possible, be on hand the first day.

EXPENSES

The expenses at the institution are as low as it is possible to make them. During 1916-17 they were as follows:

Incidental fee (per year)	$5.00
Board (per week)	3.00
Room, light, heat, and flat laundry (per week)	1.25
Deposit (per year)	5.00
Hospital fee (per term)	1.00

No increases will be made unless living costs necessitate an increase in the cost of board. Board and room are payable one month in advance. Small fees, to cover the cost of material used, are charged for certain of the laboratory courses. The amount of the fee in each case will be found in the description of the course. When a student drops such a course within two weeks after registration the laboratory fee will be refunded. The five dollar deposit, less deductions for breakage and other damage to school property, will be returned in full at the end of the year.

The buildings are lighted by electricity and heated by steam. The charge for room ($1.25 per week) covers the entire period during which the room is occupied. No deductions for board will be made unless arrangements are made at the beginning of the semester with the matron. Any student who makes arrangements in advance to be gone regularly Sunday and Monday will receive a pro rata reduction in board. A charge of twenty-five cents per meal will be made for guests. Guests' meal tickets should be purchased in advance. A penalty of 10 per cent on board bills and 25 per cent on fees will be exacted where payment is delayed two weeks or more after registration.

REQUIREMENTS FOR GRADUATION

For graduation it is required that a student complete the prescribed three-year course of study with an honorable standing in deportment. When a student receives a condition in any subject, it must be removed in one month's time otherwise it will become a failure. Students failed in any subject will be required to take the subject a second time. It is essential that the student should do some work of a practical nature during the vacation following the first and second school years respectively. If a student has had no farm experience, it is required that he

spend these two seasons upon a farm, and that special reports from both himself and his employer be given regarding his work.

DORMITORIES

Two new dormitories, one for young men and one for young women, are now in use. Each is in charge of one of the members of the faculty. These buildings are modern, three-story structures, splendidly equipped, and heated by a central heating plant. They will accommodate about one hundred and fifty students.

HOME LIFE ON THE CAMPUS

The dormitory life of the students while attending the School of Agriculture is subject to supervision. Everything possible is done to promote a healthful, moral atmosphere. The use of tobacco and spirituous liquors of all kinds is strictly forbidden. Anyone not in accord with these restrictions and not willing to lend a hand toward strong, moral growth should not come to the School of Agriculture.

HOLIDAYS

Lincoln's and Washington's birthdays will be appropriately observed. On Thanksgiving day no classes will be held, but school will continue as usual on the Friday and Saturday following.

STUDENT ORGANIZATIONS

Students are urged to join a literary society. These societies offer pleasure as well as profit. They afford a training in conducting meetings, parliamentary law, and public speaking obtainable in no other way.

The following societies hold regularly weekly meetings during the school year: The Vincent Literary Society, the Agricolae Literary Society, the Ceres Club.

An intersociety debate cup for the promotion of interest in civic and political questions has been offered by the Superintendent.

Both the Young Men's and Young Women's Christian Associations have local organizations. Sunday mornings and evenings services are conducted under the direction of these associations.

Boys' and Girls' Glee Clubs are organized and trained throughout the school year. These clubs appear at various school functions.

Band and orchestra organizations have been perfected during the past year. Credit will be given for membership and regular attendance at practices and entertainments.

INTERSCHOLASTIC ACTIVITIES

Each year the School is represented by two debating teams which debate the Northwest School at Crookston.

In athletics the school is represented by both football and basketball teams. These teams schedule games with the high schools of this section.

LECTURE COURSE

During the school year a lecture and entertainment course, consisting of four or five numbers, is given at a cost of one dollar for the series. These entertainments are strictly high grade and furnish a pleasant relaxation from regular school work.

LIBRARY

The library is well equipped to supply the needs of the students. A large number of books has been selected to meet the requirements of the various departments. These, with the government and station reports, are available for use by instructors and students.

The Librarian is always ready to give whatever assistance she can in directing students in the selection of the books they may need in the pursuit of their work.

EXPERIMENT STATION

The West Central School and Station is now conducting extensive experiments in agronomy, soils, horticulture, animal husbandry, and agricultural engineering. Beginning with 1915 a special report has been issued each year reporting the progress of the work.

SCHOOL FARM

The farm comprises approximately 400 acres and furnishes an extensive laboratory for the work of the School. Information concerning the methods employed on the farm are always available to the students. The class room work is supplemented with actual practice either in the field or with crops grown upon the farm.

STATION FLOCKS AND HERDS

The School now maintains an abundance of livestock all of which is used for student work in the Animal Husbandry Department. Pure-bred Holstein, Guernsey, Shorthorn, and Angus cattle, grade and pure-bred Percheron horses, Shropshire sheep, Duroc-Jersey hogs, White Leghorn and Barred Plymouth Rock chickens are maintained for station and school purposes. These furnish excellent opportunities for students to intelligently study the various courses in animal husbandry.

TYPES OF COURSES

LONG COURSES

The regular courses cover a period of three sessions of six months each, beginning in October and closing in March. The long course for young men is so arranged as to make it possible for a student to select a large portion of his work in any one of the three lines of agronomy, animal husbandry, or agricultural engineering. The long course for young women permits of special training in home management, dressmaking, teaching, music, home nursing, public speaking, etc. Both young men and young women may receive credit in music in connection with any of the courses. They may also choose academic subjects in the third and fourth years, preparatory to college entrance. The main emphasis of the institution is given to its long courses, and all are urged to complete the three sessions.

ADVANCED COURSES

It has been found that the eighteen months of the long course is a very short time in which to give all of the work that should be included in a satisfactory course. Therefore a fourth six months of work is offered. During this fourth session graduates of the long course may elect to specialize in one of the lines of work listed below. They may, at the same time, choose from the elective lists subjects that they could not obtain during their first three sessions. The major lines of work suggested for boys are dairying, beef production, engineering, carpentry, advanced farm management, and academic subjects. The major lines for girls are dressmaking, advanced home management, nursing, and music.

COLLEGE PREPARATORY

Graduates of the West Central School of Agriculture who have completed two summers of supervised work on their own farms, one additional school year of six months and one additional summer's work or the equivalent thereof, will be admitted to the Colleges of Agriculture and Forestry of the University of Minnesota.

DEPARTMENT OF MUSIC

For those who are interested, credit courses in piano instruction are offered. Ten half-hour and ten group lessons per term are given with special time for practice. Fees of ten dollars per term for the lessons and two dollars and a half per term for piano rental are charged. Special rooms are set aside for practice, making it possible to do good, thoro work. A class in musical theory meets once a week, and instruction is also given in the history of music, ear training, and the rudiments of harmony.

SHORT COURSES

The short courses include the six weeks' terms and the one week sessions. The first are given during the six weeks following June 12 and include instruction in teacher training, dressmaking, homemaking, music, and academic subjects. The one week sessions are three in number as follows: The Farmers' Short Course, regularly held the third week in February; the Junior Short Course given immediately after the close of the long courses in March; and the Short Vacation for Farm Women, which is planned for Chautauqua week in June.

TEACHERS' TRAINING SCHOOL

The fourth annual session for rural school teachers will open June 12 and continue six weeks. The technical work will be offered by members of the regular faculty and the usual summer school courses will be in charge of a corps of ten instructors furnished by the State Department of Education. The proper completion of any course will command certificate credit without the usual examination.

SUMMER DRESSMAKERS' COURSE

A course in commercial dressmaking is offered in the summer session. Instruction is given in plain sewing, dress trimming, tailoring, and the study of standard dress materials and their manufacture. The aim of the course is to teach dressmaking as a trade.

SUMMER HOME MAKERS' COURSE

The purpose of the Home Makers' Course is to afford an opportunity to those who desire to obtain training in the administration of the home. The work is organized with the purpose of developing efficient home makers. This course is given during the summer session.

A SHORT VACATION FOR FARM WOMEN

The fourth annual short vacation for farm women will be held during the Chautauqua week. This affords to those enrolled the opportunity of attending the splendid lectures and entertainments offered during the Chautauqua season. In addition, there will be the usual talks and periods of visiting. The training school will be in session and faculty members will help make the time pleasant and profitable. The fee for the course will be $4.00. This will pay for the board and all other expenses, including the Chautauqua tickets. This course is offered June 25 to 29, 1917.

COURSES OF STUDY REQUIRED FOR GRADUATION

Three Year Course

BOYS

FIRST YEAR

First Term		*Second Term*	
Credit Hours		Credit Hours	
5	English A	5	English B
5	Corn	5	Grain
5	Farm Accounts	5	Anatomy-Hygiene
5	Types and Breeds	5	Industrial Geography or
			3 Gas Engines
2	Carpentry	2	Carpentry
2	Blacksmithing	2	Blacksmithing
1	Milk Testing	1	Stock Judging
1	Spelling	1	Penmanship
1	Gymnasium	1	Gymnasium

SECOND YEAR

Fall Term

REQUIRED SUBJECTS

5 English C
5 Chemistry
1 Gymnasium

Agronomy	or	Animal Husbandry	or	Agrl. Engineering
2 Grain Judging		1 Stock Judging		5 Drainage
3 Garden and Orchard		2 Grain Judging		3 Mechanical Drawing
9 Elective		11 Elective		6 Elective

Winter Term

REQUIRED SUBJECTS

5 Government and Law
5 Agricultural Physics
1 Gymnasium

Agronomy	or	Animal Husbandry	or	Agrl. Engineering
4 Forage Crops		5 Feeds and Feeding		3 Farm Structures A
5 Feeds and Feeding		4 Forage Crops		3 Rural Sanitation
5 Elective		1 Stock Judging		8 Elective
		4 Elective		

THIRD YEAR

Fall Term

REQUIRED SUBJECTS

5 English D
1 Gymnasium

Agronomy	or	Animal Husbandry	or	Agrl. Engineering
5 Farm Management A		3 Animal Breeding		3 Gas Engines B
14 Elective		1 Stock Judging		3 Farm Structures B
		15 Elective		13 Elective

REQUIRED SUBJECTS

Winter Term

5 English E
1 Gymnasium

Agronomy	or	Animal Husbandry	or	Agrl. Engineering
2 Farm Management B		3 Animal Diseases		5 Farm Mechanics
5 Soils		16 Elective		14 Elective
12 Elective				

Note: In the second and third years, students choosing one group may elect from either of the other two groups, or from the following general list until a total of 25 hours is filled.

ELECTIVE LIST

The following list of electives is open to juniors and seniors, from which they may complete their classification:

3 Beef Production, first term
3 Dairy Production, second term
3 Poultry, second term
2 Commercial Seed Production, first term
5 Advanced Farm Management
3 Garden and Orchard, first term
3 Botany, second term
5 Advanced Carpentry, first and second terms
1 Cement Construction, first and second terms
2 Traction Engineering, first term
3 Mechanical Drawing, first and second terms
5 Algebra, first and second terms
5 Geometry, first and second terms
2 Business Accounting, second term
2 Public Speaking, second term
2 Debate, second term
3 Government and Law, first term
5 United States History, second term
5 Modern History, first term
5 Home Literature, first term
3 Music, first and second terms

GIRLS

FIRST YEAR

First Term	*Second Term*
Credit Hours	Credit Hours
5 English A	5 English B
2 Garment Making A	2 Garment Making B
3 Foods and Cookery A	3 Foods and Cookery B
5 Home Nursing A	5 Home Nursing B
1 Gymnasium	1 Gymnasium A
1 Spelling	1 Penmanship
8 Electives	8 Elective

ELECTIVES

5 Commercial Geography
5 Home Accounts

SECOND YEAR

5 English C
3 Food Preservation
2 Dressmaking A
1 Gymnasium B
5 Industrial History A
9 Elective

5 English D
3 Dietetics
2 Dressmaking B
1 Gymnasium B
5 Industrial History B
9 Elective

ELECTIVES

5	Algebra	3	Home Decoration
5	Food and Household Chemistry	5	Home Nursing C
5	Piano	2	Textiles

THIRD YEAR

5	English E	5	English F
3	Home Management A	3	Home Management B
2	Dressmaking C	3	Dressmaking D
1	Gymnasium C	1	Gymnasium C
14	Elective	14	Elective

ELECTIVES

5	Geometry	5	Home Nursing D
5	Household Physics	5	Music
2	Textiles	5	Government

GENERAL ELECTIVE LIST

2	Piano	2	Public Speaking
1	History of Music	½	Glee Club
1	Theory of Music	2	Dressmaking E
2	Art Needlework		

NOTE: The electives are to be chosen from the special electives for each year or from the general elective list.

DESCRIPTION OF COURSES

AGRONOMY AND FARM MANAGEMENT

Corn Growing. A study of the corn plant; its botanical structure; relation to soil and climate; selection and testing; soil preparation; harvesting; diseases; silage; varieties and corn judging, supplemented with laboratory practice. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits; fee 50 cents.

Grain Growing. A study of the principal cereal crops. Seed selection; soil and cultural requirements; harvesting. Class room work supplemented with laboratory practice. Rec. 3 hrs.; Lab. 2, 2 hrs.; fee, 50 cents.

Corn and Grain Judging. Score card practice, commercial grading and judging work with the object in view of making the student proficient in the judging and growing of pure-bred seed. Lab. 2, 2 hrs.; 2 credits; fee, $1.00.

Forage Crops. A study of the leguminous crops, clover, alfalfa, etc., pastures and meadows, and the annual forage crops. Cultural requirements of forage crops and their importance on the farm. Rec. 2 hrs.; Lab. 2, 2 hrs.; 4 credits; fee, $1.75.

Commercial Seed Production. The breeding and growing of pure-bred seed corn and grain upon the farm, and the best methods of marketing these products. Lab. 2, 2 hrs.; 2 credits.

Soils. This course is applied to the needs of western Minnesota. Soil formation, soil types, soil physics, soil chemistry, soil tillage, and the use of fertilizers are given chief attention. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.

Farm Management I. The management of the land, labor, and capital in their relation to the farm business. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.

Farm Management II. A study of farm accounts. The student keeps a practical set of books on the year's work, from the taking of the inventory to closing the accounts at the end of the year. Lab. 2, 2 hrs.; 2 credits.

Advanced Studies in Farm Management. Advanced work in some of the more important problems of farm management, including farm labor, cost of production, marketing, and similar subjects. Rec. 1 hr.; Lab. 4, 2 hrs.; 5 credits.

Garden and Orchard. The planning, planting, culture, value, and management of the orchard and garden upon the general farm. Rec. 2 hrs.; Lab. 1, 2 hrs.; 3 credits.

Botany. The principles of elementary Botany. Intended for students who may wish to use the credit for college entrance. Rec. 2 hrs.; Lab. 2, 2 hrs.; 4 credits.

ANIMAL AND DAIRY HUSBANDRY

Types and Breeds. The study of the history, development, characteristics, and adaptability of the various breeds of horses, cattle, sheep, and swine. Rec. 5 hrs.; 5 credits.

Milk Testing. Principles of milk testing. The students are given a practical working knowledge of herd testing and record work. Lab. 1, 2 hrs.; 1 credit; fee, 50 cents.

Stock Judging A. The study and practice in the use of the score card, showing the relation of body structure to economical production. Lab. 1, 2 hrs.; 1 credit.

Stock Judging B. Competitive and comparative judging of all classes of livestock. Lab. 1, 2 hrs.; 1 credit.

Stock Judging C. A continuation of Stock Judging B. Lab. 1, 2 hrs.; 1 credit.

Stock Judging D. A continuation of Stock Judging C. Lab. 1, 2 hrs.; 1 credit.

Feeds and Feeding. The general composition of the animal body; the composition and digestibility of foods; feeding standards; methods of feeding. Rec. 5 hrs.; 5 credits.

Animal Breeding. The theory and practice of animal breeding, including variation, heredity, selection, effect of pure-bred animals in improving types of stock, and pedigrees. Rec. 3 hrs.; 3 credits.

Animal Diseases. The causes, prevention and cure of animal diseases, including emergency treatment. Rec. 3 hrs.; 3 credits.

Beef Production. The production of beef cattle, both pure-bred and market stock, including from a practical standpoint, feeding and management of the herd, the selection of breeding stock, and the arrangement of buildings and yards. Rec. 2 hrs.; Lab. 1, 2 hrs.; 3 credits.

Poultry. Practical instruction in the breeding and care of poultry for general farm use. Rec. 2 hrs.; 2 credits.

Dairy Production. An advanced course designed to fit a student for the successful management of a dairy herd. Rec. 2 hrs.; Lab. 1, 2 hrs.; 3 credits.

AGRICULTURAL ENGINEERING

WOODWORK A. Carpentry: care, use, and sharpening tools; laying off work; making of joints and framing. Work designed to be especially helpful in planning, framing, and construction of farm buildings. Lab. 2, 3 hrs.; 2 credits; fee, $1.25.

WOODWORK B. Continuation of Course A. Lab. 2, 3 hrs.; 2 credits; fee, $1.25.

FORGE WORK A. Blacksmithing: forging, and welding of iron and steel, making and tempering hand tools. Work designed to be especially helpful in the repair and operation of machinery. Lab. 2, 3 hrs.; 2 credits; fee, $1.50.

FORGE WORK B. Continuation of Forge Work A. Lab. 2, 3 hrs.; 2 credits; fee, $1.50.

MECHANICAL DRAWING A. The use of drawing instruments, lettering, and the making of working drawings. Lab. 3, 2 hrs.; 3 credits.

DRAINAGE AND SURVEYING. Practice with level and chain; work in leveling, ditching, locating, laying tile, running lines, figuring areas, staking out buildings, mapping, and estimating costs. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.

AGRICULTURAL PHYSICS. A simple and practical course in Physics. The work includes the mechanics of solids, fluids, heat, and sound with a few assignments from the subjects of light and electricity. Rec. 5 hrs.; 5 credits.

FARM STRUCTURES A. The design, location, and erection of farm buildings; study of proper pitches; roof trusses; barn frames; estimates of costs. Working models are made in the shop from these plans. Lab. 3, 2 hrs.; 3 credits.

FARM STRUCTURES B. A continuation of Farm Structures A. Designing of buildings needed on the home farm, and the working out of a general plan that will meet the builder's requirements. Lab. 3, 2 hrs.; 3 credits.

RURAL SANITATION. The lighting, heating, and ventilation of farm buildings; a study of lighting systems; plumbing; systems of water supply and sewage disposal. Rec. 3 hrs.; 3 credits.

MECHANICAL DRAWING B. A continuation of Mechanical Drawing A. Practice in designing, in isometric drawing, and projection. Drawings are made from parts of such machines as gas engines and cream separators. Lab. 3, 2 hrs.; 3 credits.

CEMENT CONSTRUCTION. Properties of sand, gravel, cement, and concrete. Practice in proportioning and mixing concrete; in making concrete

blocks and fence posts, and in designing foundations. Lab. 1, 2 hrs.; 1 credit; fee, $1.00.

Gas Engines A. Development, existing types, theory and practice of operation, adjustment, repair, and utility of the internal combustion engine. Practice in valve and ignition timing, in valve grinding, and the adjustment of bearings. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits; fee, $1.50.

Traction Engines. Instruction in stopping and starting the motor, in handling the engine on the practice field, in lining up, backing into the belt, plowing, etc. Lab. 1, 2 hrs.; 1 credit; fee, $1.50.

Farm Mechanics. Farm machinery and farm motors. Selection, use, and care of tilling, seeding, harvesting, threshing and fertilizing machinery. Work is given with pumping and grinding machinery; transmission of power, grading machinery, etc. Rec. 3 hrs.; Lab. 2, 2 hours; 5 credits; fee, $1.25.

Advanced Carpentry. Designed for special carpentry preparation aiming to bring together in an applied way earlier elements of the course, together with such practical topics as designing and estimating. Final credit will be dependent upon eight months of actual work under an approved carpenter. Lab. as arranged.

ENGLISH

English A. Reading, spelling, and a brief review of the principles of grammar. Considerable time is devoted to oral reports. Short written themes required. Rec. 5 hrs.; 5 credits.

English B. Continuation of English A. Letter writing in connection with simple sentence and paragraph structure. Several selections are memorized. Rec. 5 hrs.; 5 credits.

English C. Letter writing and spelling continued. Standard books and selections of interest are read. The outline is used extensively in oral and written work. Rec. 5 hrs.; 5 credits.

English D. A continuation of English C. Rec. 5 hrs.; 5 credits.

English E. Advanced work in written composition of a narrative type. An appreciation of good literature is cultivated by extensive reading. Rec. 5 hrs.; 5 credits.

English F. Reading and advanced composition of descriptive, expository, and argumentative types continued. The derivation, usage, and meaning of words. Rec. 5 hrs.; 5 credits.

Spelling. Students are required to secure one credit in spelling. Rec. 1 hr.; 1 credit.

PENMANSHIP. Students are required to secure one credit in penmanship Rec. 1 hr.; 1 credit.

PUBLIC SPEAKING A. Practice in conducting meetings and presenting material before public gatherings. Rec. 2 hrs.; 2 credits.

PUBLIC SPEAKING B. A continuance of Public Speaking A. Rec. 2 hrs.; 2 credits.

PUBLIC SPEAKING C. Students will be trained to present readings before the public. Rec. 2 hrs.; 2 credits.

PUBLIC SPEAKING D. Continuation of Public Speaking C. Rec. 2 hrs.; 2 credits.

PUBLIC SPEAKING E. Designed to give boys training in extemporaneous speaking and debate. Rec. 2 hrs.; 2 credits.

PUBLIC SPEAKING F. A continuation of Public Speaking E. Rec. 2 hrs.; 2 credits.

MATHEMATICS

FARM ACCOUNTS. For boys. Ledger account forms. Drill is given in rapid calculation and accuracy. Application of the keeping of accounts to farm operations.

HOME ACCOUNTS. For girls. Similar to Farm Accounts for boys except that application is made to home instead of farm work. Rec. 5 hrs.; 5 credits.

ALGEBRA A. Designed to cover the usual first year academic credit work in Elementary Algebra. Rec. 5 hrs.; 5 credits.

ALGEBRA B. Continuation of Course A. Rec. 5 hrs.; 5 credits.

PLANE GEOMETRY A. Planned to cover usual academic course in Plane Geometry. Rec. 5 hrs.; 5 credits.

PLANE GEOMETRY B. Completion of Plane Geometry A. Rec. 5 hrs.; 5 credits.

BUSINESS ACCOUNTING. Business mathematics for those specializing in engineering, carpentry, etc. Rec. 2 hrs.; 2 credits.

HOME ECONOMICS

DOMESTIC ART

GARMENT MAKING A. A gymnasium suit, consisting of bloomers and blouse, a cooking outfit, and a kimono are made in the first term. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Garment Making B. The laboratory work consists in the making of a four-piece suit of underwear. The various kinds of material and their wearing qualities; simple decoration and trimmings and the cost of the finished garments are discussed. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Dressmaking A. Each girl makes herself a snug-fitting waist and skirt which is placed on a dress form and padded out. This form is used throughout the rest of the course. A shirt waist and wool dress are made during the term. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Dressmaking B. The making of summer dresses. A house dress and a light summer dress are made. The suitability of material and design, color and lines, and cost of the garments are discussed. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Dressmaking C. A wool suit is made in this term. Special attention is given to standard materials, color, lines, and cost of outside garments. Materials are purchased under direction of the instructor. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Dressmaking D. Continuation of the work in Dressmaking C, making an inexpensive graduation dress. Rec. 1 hr.; Lab. 2, 2 hrs.; 2 credits.

Dressmaking E. This course is open to any one wishing extra work in dressmaking. Lab. 2, 2 hrs.; 2 credits.

Textiles. Manufacture of cloth from wool, cotton, silk, and flax fiber; adulterations of cloth and the methods of detecting such adulterations; relation of clothing to health; clothes budgets, etc.

Art Needle Work. Color combinations, making designs for embroidering, and stenciling. Several pieces of fancy work are completed during the course. Lab. 2, 2 hrs.; 2 credits.

Home Decoration. Selection of furnishings, draperies, etc., for the home. Rec. 3 hrs.; 3 credits.

DOMESTIC SCIENCE

Foods and Cookery A. The laboratory work consists in practice in cooking cereals, soups, vegetables, fruits, and some simple desserts. The lecture work deals with the source of food products, the digestibility of foods, and the theory of cooking. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits.

Foods and Cookery B. The laboratory work includes the making of pancakes, muffins, biscuit, bread, cakes, cookies, etc., and the cooking of meats and eggs. The lecture work is a continuation of that of the first term. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits.

Food Preservation. The laboratory work consists largely in canning, pickling, preserving, and jelly making. The lecture work includes the study of cold storage, injurious preservatives, curing of meats, and preserving eggs. Rec. 2 hrs.; Lab. 2, 2 hrs.; 3 credits.

Dietetics. Invalid cookery, including the preparation of custards, gelatins, ice creams, and beverages. The lecture work is designed to give an understanding of the proper diet for different disease conditions. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits.

Home Management. This is a summary of the previous work offered. Plans and devices for saving of labor, money, and time are discussed. Each girl is offered two weeks' practice in actual preparation and serving of meals. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits.

Advanced Home Management. A continuation of the course in Home Management. Rec. 1 hr.; Lab. 2, 2 hrs.; 3 credits.

Food and Household Chemistry. Continuation of Foods and Cookery B, applying the general principles of chemistry to food in all of its uses. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.

Household Physics. The mechanics of solids, liquids, and gases. Application of the principles is made to home problems. One half of the term is devoted to heat in its relation to the household. Rec. 3 hrs.; Lab. 2, 2 hrs.; 5 credits.

HOME NURSING

Home Nursing A. The structures and functions of the human body. Hygiene and the proper care of the sick. Rec. 5 hrs.; 5 credits.

Home Nursing B. A continuation of Home Nursing A. Rec. 5 hrs.; 5 credits.

Home Nursing C. Simple medicines in relation to disease. Rec. 5 hrs.; 5 credits.

Home Nursing D. Common diseases and methods of prevention; first aid. Rec. 5 hrs.; 5 credits.

MUSIC

PIANO MUSIC

Piano Playing A. Exercises for hand position and rhythm; two, three, and five-finger exercises; major scales. Studies: Gurlitt Technic and Melody; Tapper, First Piano Book, or Graded Studies, Grade 1. Solos: Tapper, Sartorio, etc.

Piano Playing B. Exercises for hand and arm control; thumb exercises, major scales, transposition of five-finger exercises, two and three-finger exercises. Studies: Streabbog's Twelve Very Easy

Studies, Czerny Anthology Vol. 1. Solos: Graded Pieces, Grade II.

PIANO PLAYING C. Scales with different rhythms, one and two notes, 80 mm.; broken chords. Studies: Concone Twenty-four Melodious Studies; Tapper's Graded Studies, Grade III; Czerny Anthology, Vol. II. Solos: Beethoven, Heller, etc.

PIANO PLAYING D. Scales with different touches, one, two, three, and four notes, 80 mm.; Herz exercises; simple arpeggios; block chords with pressure and drop arm. Studies: Foote, First Year Bach; Czerny; Wrist and Forearm Studies. Solos: Graded Pieces, Grade III; Mozart; Sonatinas.

PIANO PLAYING E. Studies: Lynnes Key Circle Exercises, Book I; Heller, Opus 47; First Year Bach. Solos: Easy sonatas by Haydn and Mozart. Graded Pieces, Grades III and IV, Tapper, Graded Pieces III. Classes in Musical History and Music Theory.

PIANO PLAYING F. Studies: Schmitt finger exercises; the major and minor scales, hands separate, legato and staccato in varied rhythms; octave studies. Solos: Pieces by Schumann, Mendelssohn, Jensen, etc. Easier Beethoven works. Classes in musical history and music theory.

TEACHERS' COURSE. Studies: Stamaty, Rhythmic Training for the fingers; Heller, Opus 45; Smith, Octave Studies; selected Cramer studies. Solos: Bach, Two Part Inventions; Mendelssohn, Songs Without Words; Schumann, Scenes from Childhood. Chaminade, Godard, Raff, MacDowell, etc.

VIOLIN MUSIC

The violin instruction will comprise the correct principles of violin playing. Solo playing will be encouraged and a class in orchestra playing will be a part of the regular study of violin pupils.

Registration for violin lessons will be regulated by the rules governing all musical instruction given at the school. See page 8.

BAND INSTRUMENTS

Instruction in the various instruments, such as cornet, clarinet, trombone, etc., will be given.

MISCELLANEOUS

ANATOMY–HYGIENE (For boys). Comparative anatomy and human hygiene. An introduction to the later animal husbandry course and a preparation for the care of the health.

AGRICULTURAL CHEMISTRY. A general introductory course preparatory for later work in agronomy, animal husbandry, and home economics.

GOVERNMENT AND LAW. Local, state, and national governmental forms and practices. A brief study of common contracts, deeds, mortgages, line fences, etc.

COMMERCIAL GEOGRAPHY. Designed to give the student a view of the broad relation of Geography to Commerce. Rec. 5 hrs.; 5 credits.

INDUSTRIAL HISTORY. The development of the industries of the country. Special emphasis is laid on the history of agriculture. Rec. 5 hrs.; 5 credits.

GYMNASIUM (Girls). All students will be required to take gymnasium work during their entire residence at the school. Girls will be organized into classes for exercises, folk dances, and games. 1 credit.

GYMNASIUM (Boys). Credit will be allowed to boys for membership on school teams, and participation in special lines of gymnasium work which they will be allowed to elect. 1 credit.

STUDENT ROLL

STUDENTS IN ATTENDANCE AT WEST CENTRAL SCHOOL AND STATION

MORRIS, MINNESOTA, 1916-1917

Aanerud, Magna, Elbow Lake
Anderson, Amanda, Wadena
Anderson, Jim, Clarinda, Iowa
Anderson, Nellie, Ortonville
Anderson, Otto, Clara City
Anderson, Stena, Belgrade
Anderson, Walfred, Murdock
Bennett, Robert, Lowry
Benson, Sherman, Kensington
Bjorklund, Reuben, Kensington
Bloomquist, Irene, Starbuck
Bolstad, Clara, Dawson
Brevig, Agnes, Starbuck
Brevig, Caroline, Starbuck
Brisbane, Gladys, Morris
Brisbane, Lowell, Morris
Burros, Irene, Evansville
Christenson, Mabel, Porter
Cook, Aura, Westport
Cook, Perry, Donnelly
Cooper, Donald, Carlos
Cummings, Kenneth, Dawson
Dehne, Henry, Holloway
Diebold, Edwin, Bellingham
Doe, Lyle, Beardsley
Dosen, Clifford, Starbuck
Dosen, Karen, Starbuck
Dripps, Allen, Spencer, Iowa
Dyrstad, Agnes, Glenwood
Erdahl, Manford, St. Cloud
Erickson, Ethel, Nelson
Erickson, George, Westport
Evenson, Harvey, Wolverton
Fauskee, Ella, Brooten
Fauskee, Tina, Brooten
Ferrell, Herbert, Morris
Field, Hoyt, Spicer
Fosberg, John, Winnipeg, Can.
Gorder, Leroy, Starbuck
Hagesteun, Ida, Starbuck
Halvorson, Roy, Kerkhoven
Halvorson, Theodore, Barrett
Hanson, John, Louisburg
Hanson, Silas, Harmony
Hendrickson, Walter, Kensington
Herring, Guy, Renville
Hiebel, Anna, Alexandria
Hilleren, Bertine, Benson
Holtan, Joseph, Dawson
Huizinga, Flora, Ortonville
Huntley, Max, Hancock
James, Harold, Glenwood
Jenson, Chris, Morris
Johnson, Frank, Ortonville
Johnson, Mabel, Ortonville
Keeler, Herbert, Chokio
Kling, Louise, Morris
Knutson, Carl, Tenney
Koehntopp, Herbert, Bellingham
Korn, William, Clara City
Kranker, Svend, Morris
Laird, Muriel, Terrace
Larson, Arnold, Kensington
Larson, Arthur, Rothsay
Larson, Earl, Clinton
Larson, Julia, Lowry
Larson, Mamie, Rothsay
Larson, Phillip, Murdock
Larson, Selma, Cyrus
Larson, William, Wolverton
Lerdahl, Hilma, Cyrus
Lilienthal, Hazel, Glenwood
Lindholm, Gottfred, Ortonville
Maanum, Elmer, Hancock
Madsen, Ole, Herman
Mahoney, Francis, Correll
Mecklenberg, Dora, Nashua
Moen, Edward, Kensington
Monson, Clarence, Doran
Myrum, Agnes, Louisburg
Myrum, Viola, Louisburg
Nelson, Jessie, Dawson
Ness, Ben, Cyrus
Norby, Christine, Morris
Nord, Richard, Wolverton
Odden, Harold, Echo
Olds, Pearl, Morris
Olson, Adolph, Murdock
Olson, Selma, Ortonville
Olmeim, Carl, Starbuck
Pearson, Victor, Grove City
Pehl, Ralph, Campbell
Peterson, Clara, Cyrus
Peterson, Walter, Maynard
Pittier, Emilio, Washington, D. C.
Pushor, Kyle, Donnelly
Quam, Andrew, Glyndon
Quam, Godeo, Glyndon

Quitney, Gerard, Lowry
Reisrud, Clara, Starbuck
Ritzschke, Herman, Herman
Roiland, Tilman, Louisburg
Rolen, Carl, Clinton
Rolen, Harold, Clinton
Rolin, Vear, Breckenridge
Rolighed, Marvin, Appleton
Rosenau, William, Sauk Center
Saterlie, Arthur, Appleton
Sears, Elmer, Motley
Shaw, Curtis, Morris
Simonson, Anna, Terrace
Simonson, Helga, Terrace
Sinclaire, Wayne, La- Moille
Snyder, Charles, Cottonwood
Solbrekken, Emma, Sedan
Solvie, Alice, Cyrus
Solvie, Eilert, Cyrus
Solvie, Otto, Hancock
Spalinger, Mary, Clinton
Steinbring, Henry, Morris
Stotesbury, Lydia, Barry
Sugden, Pearl, Herman
Sund, Henry, Wendell
Swenson, Alvin, Clinton
Swenson, Otto, Chicago, Ill.
Thieke, Anna, Beardsley
Thimmesch, Mary, Osakis
Thoen, Elmer, Dawson
Thompson, Magnus, Starbuck
Thompson, Truman, Osakis
Torgerson, Leslie, Motley
Ulvestad, Johanna, Chokio
Ulvestad, Ruth, Chokio
Vaala, Horance, Madison
Warner, Sadie, Hancock
Welfare, Alfred, Morris
Westberg, Ethel, Alamo, N. D.

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